

What is claimed is:

1. A seatbelt apparatus for a vehicle, comprising:

a webbing for restraining a passenger seated on a seat;

5 a retractor for winding and rewinding the webbing;

a first pretensioner for winding the webbing to the retractor by a first tension;

a second pretensioner for applying a second tension to the webbing in an emergency about the vehicle to restrain the passenger;

10 a manipulated brake detecting unit for detecting a manipulated amount of a brake pedal of the vehicle;

an obstacle detecting unit for detecting an obstacle in front of the vehicle; and

a control unit for controlling the first tension by the first pretensioner in accordance with at least one of a tension control based on detection data by the manipulated brake detecting unit and another tension control based on detection data by the obstacle detecting unit,

15 wherein the control unit adopts the tension control based on the detection data by the manipulated brake detecting unit while taking precedence over the tension control based on the detection data by the obstacle detecting unit.

2. The seatbelt apparatus for the vehicle of claim 1, wherein the first tension applied to the webbing under the tension control based on the

25 detection data by the obstacle detecting unit is established to be different from the first tension applied to the webbing under the tension control based

on the detection data by the manipulated brake detecting unit.

3. The seatbelt apparatus for the vehicle of claim 1, wherein the first tension applied to the webbing under the tension control based on the detection data by the obstacle detecting unit is established to be smaller than the first tension applied to the webbing under the tension control based on the detection data by the manipulated brake detecting unit.

4. The seatbelt apparatus for the vehicle of claim 1, wherein a maximum of the first tension applied to the webbing under the tension control based on the detection data by the obstacle detecting unit is established to be smaller than another maximum of the first tension applied to the webbing under the tension control based on the detection data by the manipulated brake detecting unit.

5. The seatbelt apparatus for the vehicle of claim 1, wherein the first tension applied to the webbing under the tension control based on the detection data by the obstacle detecting unit is established, before a collision, to be smaller than the first tension applied to the webbing under the tension control based on the detection data by the manipulated brake detecting unit.

6. The seatbelt apparatus for the vehicle of claim 1, wherein,
in case of controlling the operation of the first pretensioner under the tension control based on the detection data by the manipulated brake detecting unit, the control unit controls to cancel the operation of the first pretensioner after a predetermined time has passed from a collision with the

obstacle; and

in case of controlling the operation of the first pretensioner under the tension control based on the detection data by the obstacle detecting unit, the control unit controls to cancel the operation of the first pretensioner immediately after the collision with the obstacle.

7. The seatbelt apparatus for the vehicle of claim 1, wherein,

in case of controlling the operation of the first pretensioner under the tension control based on the detection data by the obstacle detecting unit, the control unit controls the operation of the first pretensioner in a manner that a predetermined tension as the first tension is applied to the webbing firstly and subsequently, a gradually-increasing tension is continuously applied to the webbing until a time when a collision is expected.

8. The seatbelt apparatus for the vehicle of claim 1, wherein the control unit controls the operation of the first pretensioner in a manner that the first tension applied to the webbing under the tension control based on the detection data by the obstacle detecting unit and the first tension applied to the webbing under the tension control based on the detection data by the manipulated brake detecting unit are established in multistage.

9. The seatbelt apparatus for the vehicle of claim 1, wherein the control unit controls the operation of the second pretensioner in a manner that the second tension applied to the webbing on condition that the operation of the first pretensioner has been controlled under the tension control based on the detection data by the manipulated brake detecting unit becomes larger than

the second tension applied to the webbing on condition that the operation of the first pretensioner has been controlled under the tension control based on the detection data by the obstacle detecting unit.

- 5 10. A seatbelt apparatus for a vehicle, comprising:
- a webbing for restraining a passenger seated on a seat;
 - a retractor for winding and rewinding the webbing;
 - a first pretensioner for winding the webbing to the retractor by a first tension;
 - 10 a second pretensioner for applying a second tension to the webbing in an emergency about the vehicle to restrain the passenger;
 - manipulated brake detecting means for detecting a manipulated amount of a brake pedal of the vehicle;
 - obstacle detecting means for detecting an obstacle in front of the
 - 15 vehicle; and
 - control means for controlling the first tension by the first pretensioner in accordance with at least one of a tension control based on detection data by the manipulated brake detecting means and another tension control based on detection data by the obstacle detecting means, wherein the
 - 20 control means adopts the tension control based on the detection data by the manipulated brake detecting means while taking precedence over the tension control based on the detection data by the obstacle detecting means.
11. A method for controlling a seatbelt for a vehicle, comprising:
- 25 preparing a webbing for restraining a passenger seated on a seat;
 - detecting a manipulated amount of a brake pedal of the vehicle;

detecting an obstacle in front of the vehicle;

applying a first tension to the webbing in accordance with a tension control based on detection data of the manipulated amount of the brake pedal while taking precedence over another tension control based on

5 detection data of the obstacle; and

applying a second tension to the webbing in an emergency about the vehicle to restrain the passenger.